Claims 1, 3-14, 16-25 and 29-33 are currently pending in this application. Claims 1, 3-14, 16-25 and 29-33 are rejected. Independent claims 1, 11, 22, and 23 have been amended by the present response.

Claim Rejections under 35 U.S.C. §101

Claim 22 is rejected under 35 U.S.C. 101 on the ground that the claimed invention is directed to non-statutory subject matter. Applicants respectfully disagree. Nonetheless, in order to facilitate prosecution, Applicants have amended claim 22 to recite "non-transitory", as suggested by the Examiner, to overcome this rejection.

Claim Rejections under 35 U.S.C. §102(e)

In response to Applicants' last submission, the Examiner has presented new grounds for rejection in the present office action. Claims 1, 3-14, 16-25, 29, and 31-33 (including each of the independent claims) are rejected under 35 U.S.C. 102(e) as being anticipated by Brown et al. (US Patent No. 7,046,687), hereinafter "Brown".

Applicants believe the claims in presently pending form are allowable. Nonetheless, to facilitate prosecution, Applicants have amended the independent claims to recite that "information" which "comprises pointer information for the packet" is "stored" in a "physical queue" which is allocated to the classification made for the packet according to a virtual queue.

The amendments to the independent claims are supported throughout the specification, including at pages 2-3 and 13-14 and Fig. 2. Applicants reserve the right to assert the subject matter contained in the specification in this and other applications in the future.

Brown does not teach the above recited new claim feature.

Brown does concern virtual queues, and it appears to describe the use of virtual queues in the context of facilitating transfer of data between the ports of a network device. "Configurable virtual output queues (VOQs) in a scalable switching system and methods of using the queues are provided. The system takes advantage of the fact that not all VOQs are active or need to exist

at one time. Thus, the system advantageously uses configurable VOQs and may not dedicate memory space and logic to all possible VOQs at one time." (Brown, Abstract).

Brown's virtual output queues, however, are not configured to hold pointers regarding incoming packets. Rather, Brown describes a system in which its virtual queues store the incoming packets themselves. Brown uses the term "cell" to refer to a packet. It describes the use of virtual queues to store cells (i.e., packets) in the following manner: "The port processor 1100 in FIG. 11 A may have at least one VOQ in the set of VOQs 1110 *that stores cells* intended for each destination port 101 of the switch architecture 100 in FIG. 1 or the switch architecture 1000 in FIG. 10. If the switch architecture 100 in FIG. 1 or switch architecture 1000 in FIG. 10 has N number of destination ports 101, then each port processor 1100 may have at least N VOQs 1110 to receive incoming data cells." (Col. 23, lines 50-57 (emphasis added)). Brown continues: "FIG. 11B illustrates one embodiment of a plurality of VOQs 1130A 1130D within the set of VOQs 1110 in the port processor 1100 of FIG. 11A. Although only four VOQs 1130A 1130D are shown in FIG. 1B, the set of VOQs 1110 in the port processor 1100 of FIG. 11A may comprise any number of VOQs. In FIG. 11B, the *VOQ 1130A stores cells with a destination port address of 0* (e.g., destination port address bits=0000000000) *and a priority level of 0* (e.g., priority bits=000). The *VOQ 1130B stores cells with a destination port address of 0* (e.g., destination port address bits=0000000000) *and a priority level of 1* (e.g., priority bits=001). The *VOQ 1130C stores cells with a destination port address of 1* (e.g., destination port address bits=0000000001) *and a priority level of 0* (e.g., priority bits=000). The *VOQ 1130D stores cells with a destination port address of 1* (e.g., destination port address bits=0000000001) *and a priority level of 1* (e.g., priority bits=001). The destination port address and the priority level may comprise any configurable number of bits." (Col. 24, lines 1-19 (emphasis added)).

Based on the above sections of Brown, it is clear that Brown's virtual output queues store "cell" (that is, packets) and not pointer information regarding the packets.

By contrast, the independent claims recite "storing information associated with the packet in the allocated physical queue, wherein the information comprises pointer information for the packet". As stated in the specification, "Packets are stored in random access buffers associated with the ingress ports. However, only pointers to the data need to be stored in the respective

VOQs; the payloads may be stored elsewhere (e.g., in an off-chip random access memory). (Specif., page 2, line 34, to page 3, line 4). The specification further states: "In preferred implementations, 'assigning' the first packet to the first queue involves storing classification information and pointer information for the first packet in the first free queue. (Specif., page 13, line 32, to page 14, line 3).

Brown clearly does not teach storing pointer information for a packet (or cell) in a virtual queue; as noted above, it describes storing the packet itself in the virtual queue.

For at least the above reasons, Applicants respectfully submit that independent claims 1, 11, 22, and 23 are patentable over Brown, and request that the Examiner withdraw his section 102(e) rejections against these claims, as well as the claims that depend upon them.

Claim Rejections under 35 U.S.C. §103(a)

Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brown in view of Ciancaglini et al. (U.S. Publication No. 2005/0089054), hereinafter "Ciancaglini". Claim 30 depends on independent claim 1.

For the reasons discussed above, Brown does not teach or suggest the features of the independent claims. Applicants have reviewed Ciancaglini and it does not cure the deficiencies of Brown. Accordingly, for at least the reasons stated above, Applicants respectfully submit that claim 30 is also patentable over the cited references.

In view of the foregoing, Applicants believe all pending claims are in condition for allowance. Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at the telephone number set out below.

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